ERT

FACTORY RESETTING VIPER LINCS

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Background

The ERT Viper LINCs that we refer to in this guide are the ones manufactured by Safe Environment Engineering. The LINC is the wireless device that communicates with your instrument and the Gateway.

If a LINC is fails to connect to your Gateway, the LINC will need to be reset and reconfigured to remedy the problem.

- Check the Wi-Fi (WAN) light on the top of the LINC - If the Wi-Fi light repeats the pattern of flashing every so often and going dark (light never stays solid) and a Gateway is within range, resetting the LINC and reapplying the LINC configuration will most likely remedy the problem.

Why does this happen?

- Perhaps the LINC has been set to connect to a non-standard Wi-Fi network name – i.e. something other than EPAERT1

- Perhaps an incorrect passphrase was entered on a LINC that was configured for Wi-Fi security.

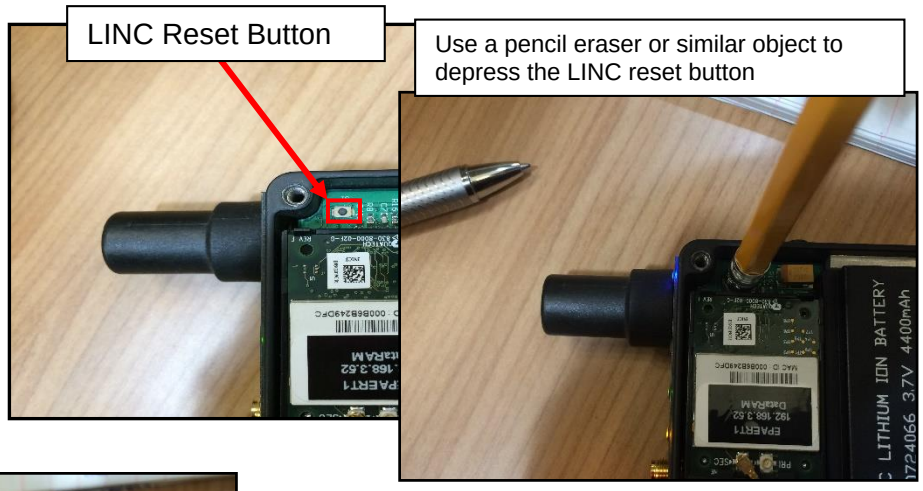
Prepare to Reset LINC

- Remove the back cover from the LINC and have a pencil with an eraser handy to help press down the reset button on the board inside the LINC.
- Have an *unsecured* (Open) Gateway ready. LINCs will only connect to a Wi-Fi network that does not have security enabled. Temporarily disable security on the Gateway if it has been enabled.
- If multiple LINCS need to be reset, work through each one individually – *do not reset all of the LINCS at the same time*. If multiple LINCS are reset at the same time, it will be difficult to determine the new IP Address of each LINC.
- Follow the sections below fully and carefully for each LINC.

Section 1 – Factory Reset LINC

This Section refers only to resetting **non** SPMFlex lincs. For resetting SPMFlex lincs, please refer to the Viper Guide for SPMFlex Setup Guide that can be found on the www.response.epa.gov/viper website.

1. With the LINC powered off, **press and hold down the reset button** (shown below). A pencil eraser serves as a good tool to hold the reset button. While keeping the reset button depressed, **press the LINC power button**. Release the power button when the power light illuminates but continue to hold down the LINC reset button until the LINC has either 2 or 4 solid LED lights illuminated. When the lights are solid, release the reset button.



When either 2 or 4 solid lights illuminate, it is OK to release the reset button.

Section 2 – Find the IP Address of the Factory Reset LINC

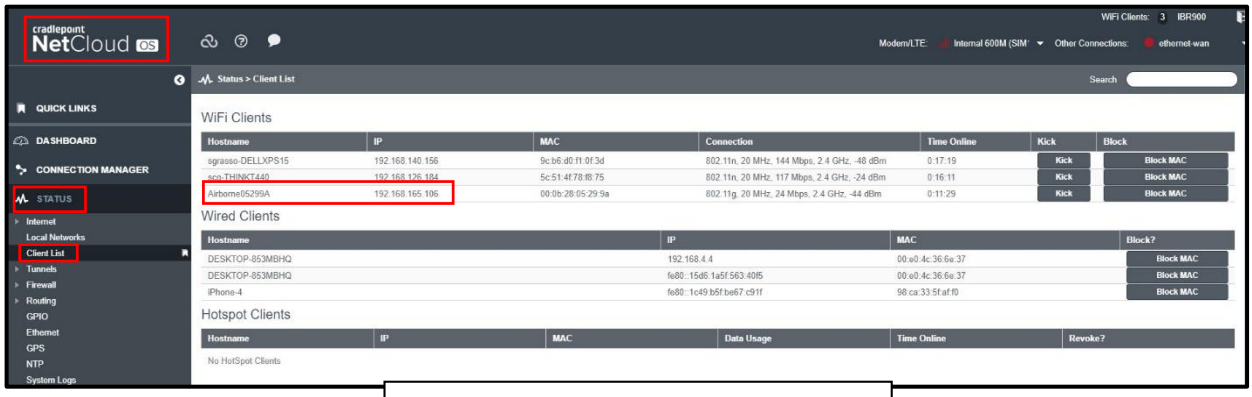
Once the LINC has been factory reset, it will **automatically** connect to the first **unsecure/unencrypted** wireless network it can find. We recommend that you have an **unsecured/unencrypted** Viper Gateway powered on. **Do not be** in the vicinity of any other unsecure wireless networks. Below are instructions on the easiest and recommended way to find the IP address of the LINC that was just reset.

1. Connect your laptop/computer to the unsecured **EPAERT1** Wi-Fi network.

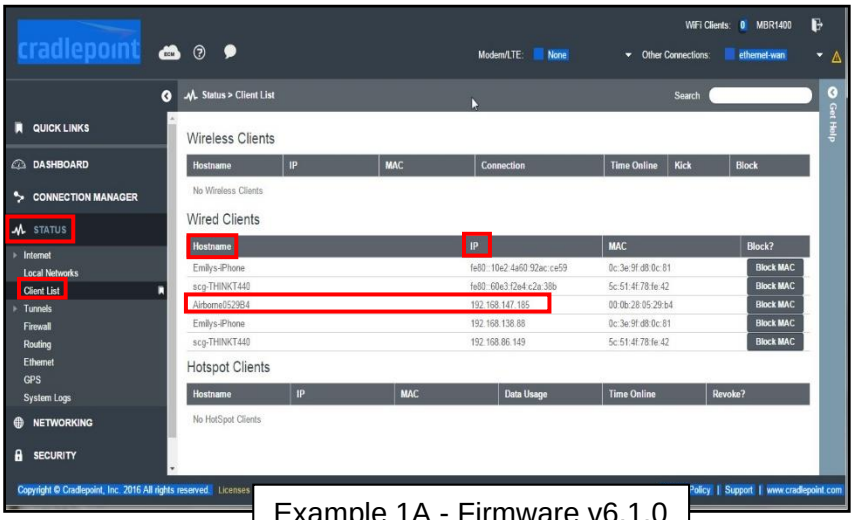
2. Open a browser and enter 192.168.4.1 in the browser address bar to navigate to the Cradlepoint Gateway Administrator Login Page. *NOTE: Username is admin. Contact ertsupport@epa.gov to obtain the password.*

3. Under **Status** | **Client List** you will see an 'Airborne' device listed in the Wired Clients Hostname list.

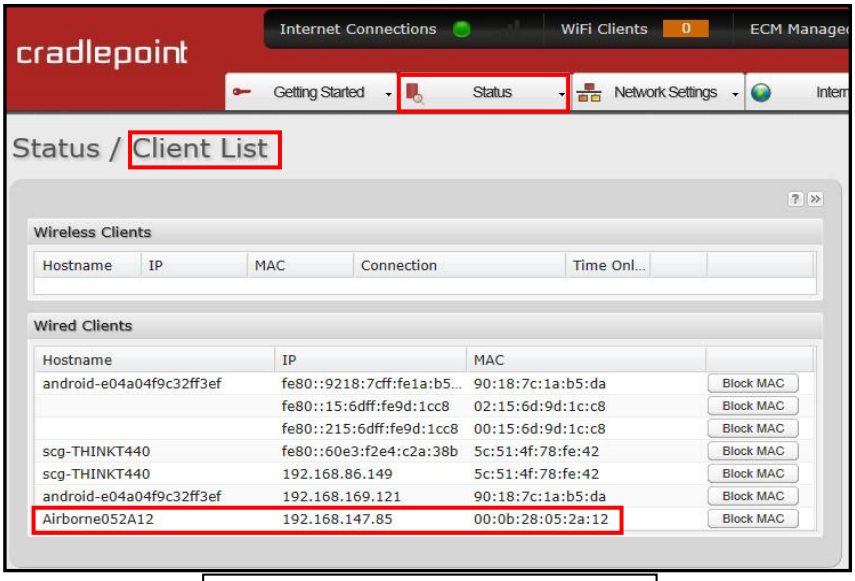
4. Write down the IP address – this is the new IP Address assigned to the LINC after the reset. ***NOTE:*** When resetting multiple LINCS, keep a list of each LINCs IP address. This will be the only way to distinguish additional LINCs as they are reset. This list will include each LINC as they are reset. You may see previous LINC resets in the list. Make sure you write down the correct one (see Example 2 below).



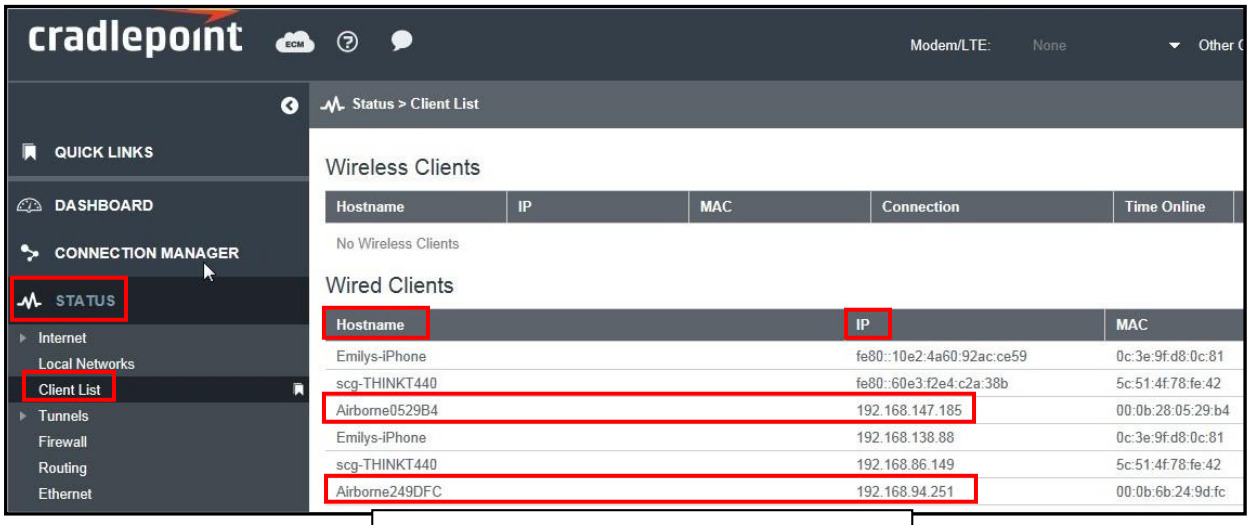
Example 1 -- **SMARTGATEWAY**
Firmware v6.5.0



Example 1A - Firmware v6.1.0



Example 1B – Firmware v5.2.4



Example 2
Multiple reset LINCS Firmware v6.1.0

NOTE: Keep a list of the IP addresses for each LINC as you go so you can identify the new LINC from a previous LINC

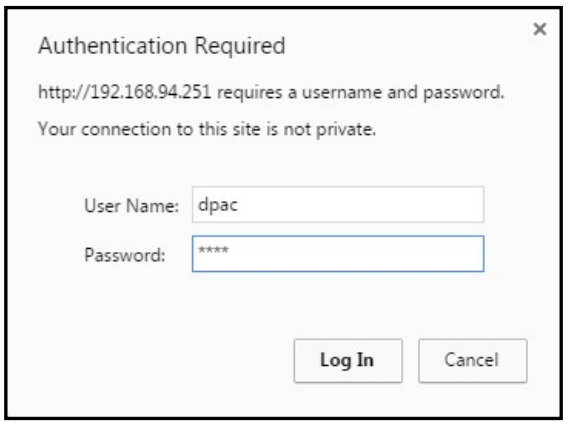
Section 3 – Apply Configuration Settings to a Factory Reset LINC

This section addresses how to apply the LINC configuration settings to a LINC that has been factory reset. ***Note: Applying configuration settings to a SPMFlex LINC differ slightly. Please refer to the User Manual for SPMFlex Setup.***

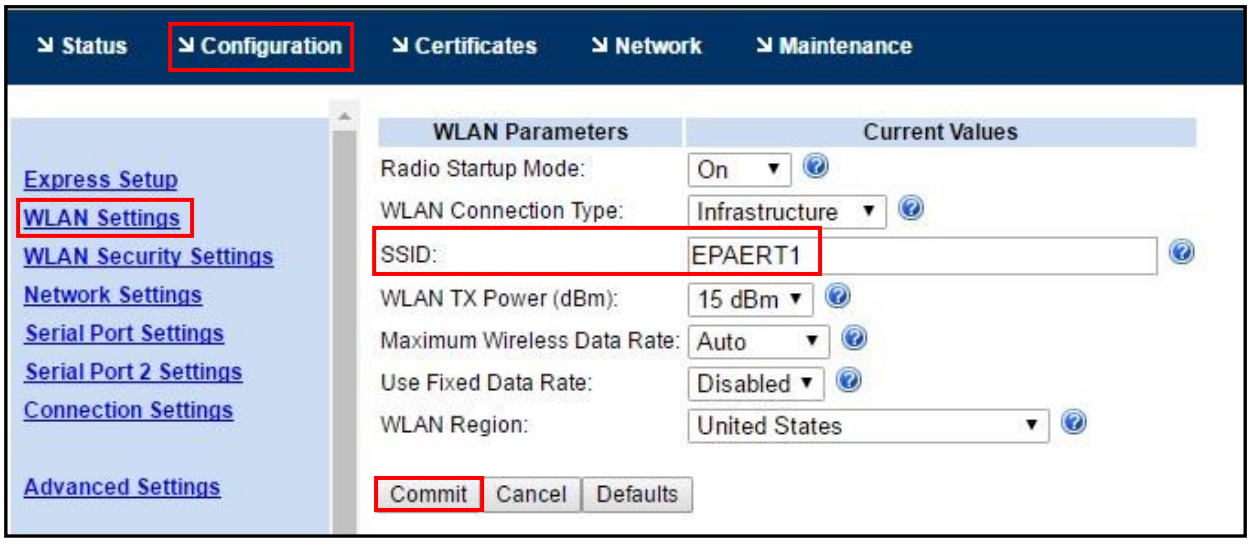
1. Connect your computer to the EPAERT1 Wi-Fi network.

2. Open a Browser and navigate to the IP address from the previous section (i.e., 192.168.147.185). Login to the LINC.

   Username: dpac
   Contact ertsupport@epa.gov to obtain the password

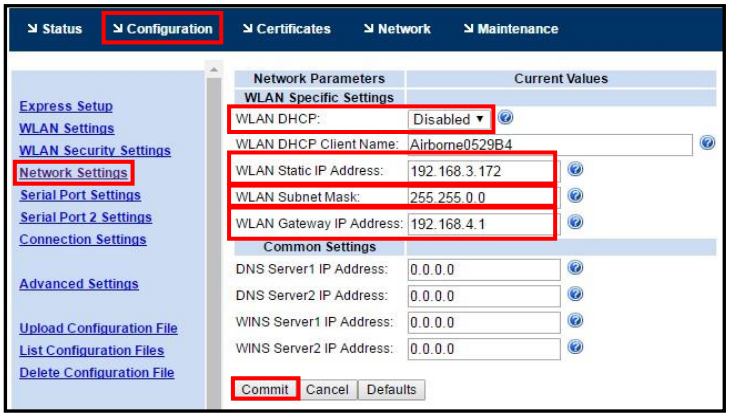


3. Under **Configuration** | **WLAN** Settings make sure the SSID is EPAERT1.
4. Click Commit when done.



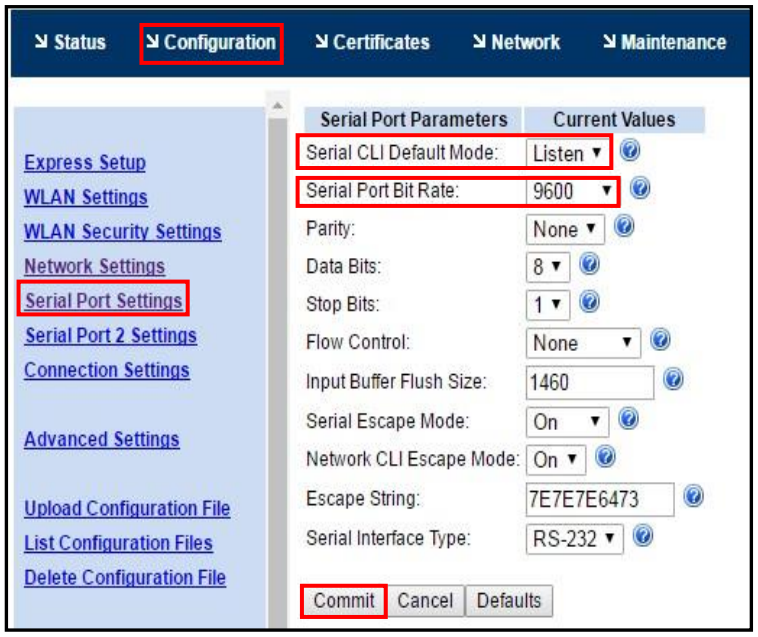
5. Under **Configuration | Network Settings**, the following Values need to be changed:

   - WLAN DHCP – Disabled
   - WLAN Static IP Address – 192.168.3.**xxx** (**xxx** represents the LINC #. Use the number labeled on the outside of the LINC)
   - Subnet Mask: 255.255.0.0
   - WLAN Gateway IP Address: 192.168.4.1
   - Click 'Commit'



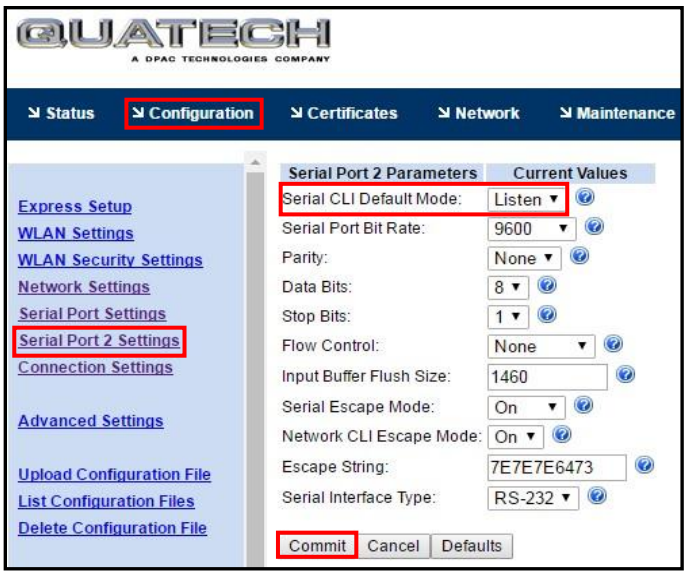
6. Under **Configuration | Serial Port Settings**, the following Parameters need to be changed:

   - Serial CLI Default Mode: Listen
   - Serial Port Bit Rate: Set to instrument specific baud rate (see Viper User Guide)
   - Click 'Commit'



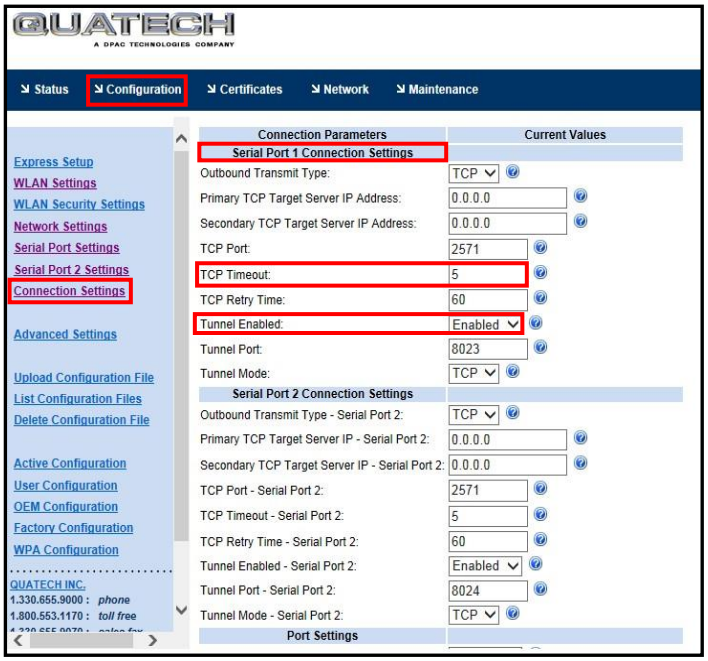
7. Under **Configuration | Serial Port 2 Settings**, the following Parameter needs to be changed:

    - Serial CLI Default Mode: Listen
    - Click 'Commit'



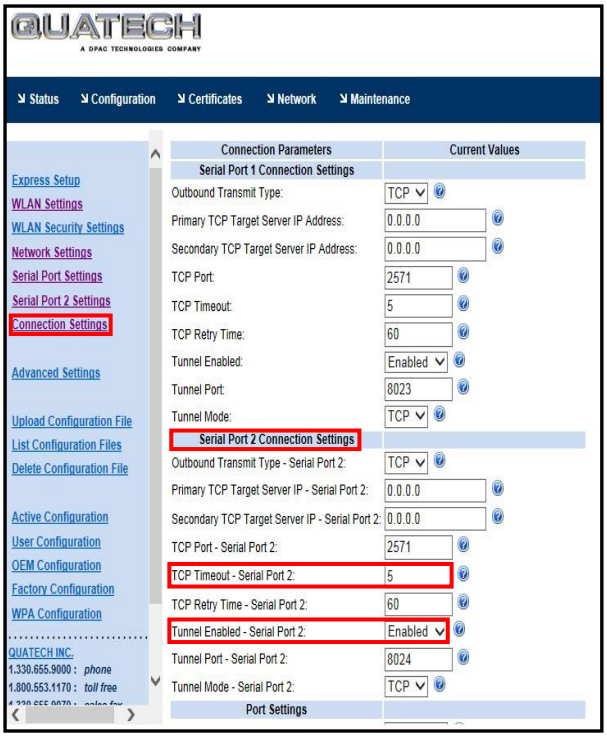
8. Under **Configuration | Connection Settings | Serial Port 1 Connection Settings**, the following settings need to be changed:

    - TCP Timeout: Set at **5**
    - Tunnel Enabled: Enabled

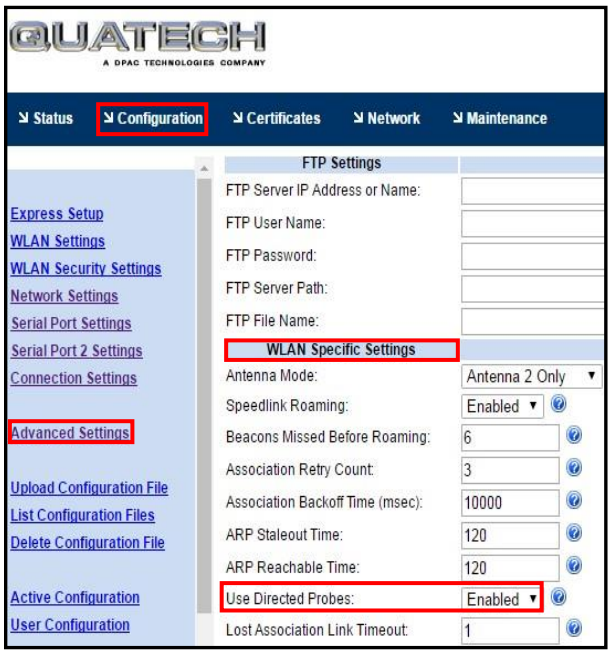


Scroll down to Serial Port 2 Connection Settings:

- TCP Timeout – Serial Port 2: Set at **5**
- Tunnel Enabled – Serial Port 2: Enabled
- Click 'Commit'

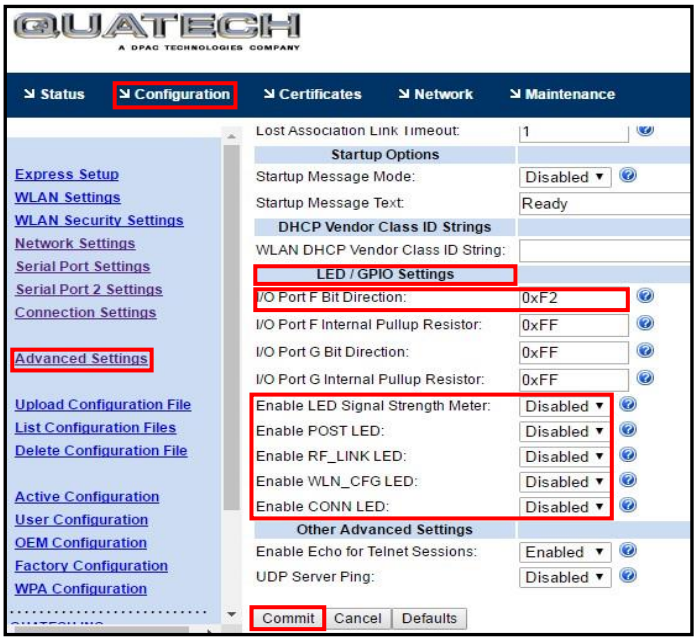


9. Under **Configuration | Advanced Settings** scroll down to the **WLAN Specific Settings** and make the following change:
    - Use Directed Probes: Enabled



Scroll down the **Advanced Settings** to **LED / GPIO Settings**, and make the following changes:

- I/O Port F Bit Direction: change to **0xF2**
- All **LEDs** should be set to: Disabled
- Click 'Commit'



10. You are now ready to Restart the newly configured LINC.

From this point forward, the LINC can be accessed via the IP address (192.168.3.XX) assigned in Step 5 above and is ready to use with Viper.